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## **ABSTRACT**

A protected transformer system and method are disclosed. The protected transformer system uses positive temperature coefficient resistive devices. The system can comprise a transformer and a positive temperature coefficient device. The transformer has a primary and a secondary winding. The secondary winding has a housing, a first terminal, a second terminal, and an insulated covering. The positive temperature coefficient device is connected to the first terminal of the secondary winding. The positive temperature coefficient device mounted in the housing. The positive temperature coefficient device has a first and second side. The first side of the positive temperature coefficient device is mounted between .2 mm .4 mm from the secondary winding. The second side of the positive temperature coefficient device is mounted between 1 mm and 5 mm from the secondary winding. The insulated covering is between the first side of the positive temperature coefficient device and the secondary winding.